BDNF Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	BDNF, Polyclonal Antibody
Full Product Name	RABBIT ANTI HUMAN BDNF
Product Gene Name	anti-BDNF antibody
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Form/Format	Purified Purified IgG - lyophilised
Concentration	IgG concentration 1.0mg/ml after reconstitution (lot specific)
Preparation and Storage	Prior to reconstitution store at 4 degree C. After reconstitution store at -20 degree C. Storage in frost-free freezers is not recommended. This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use. Shelf Life: 12 months from date of reconstitution.
Molecular Weight	31,116 Da
OMIM	113505
3D Structure	ModBase 3D Structure for P23560
Reconstitution	Reconstitute with 0.1ml distilled water Care should be taken during reconstitution as the protein may appear as a film at the bottom of the vial. MyBioSource recommends that the vial is gently mixed after reconstitution. For long term storage the addition of 0.09% sodium azide is recommended.
Immunogen	Recombinant human BDNF Buffer Solution||Phosphate buffered saline
Antiserum Preparation	Antiserum to human BDNF were raised by repeated immunisation of rabbits with highly purified antigen. Purified IgG was prepared from whole serum by affinity chromatography.
Target Species	Human
Applications Tested/Suitable for anti-BDNF antibody	ELISA (EIA), Western Blot (WB)
Application Notes for anti-BDNF antibody	ELISA: This purified human BDNF antibody may be used in an indirect ELISA or as the capture reagent in a sandwich ELISA with our biotinylated human BDNF antibody as the detection reagent and recombinant human BDNF as the standard. **ELISA:** Minimum Dilution: 0.5; Maximum Dilution: 2.0ug/ml **Western Blotting:** Minimum Dilution: 0.1; Maximum Dilution: 0.2ug/ml
Related Product Information for anti-BDNF antibody	Rabbit anti Human BDNF antibody recognizes human BDNF (brain-derived neurotrophic factor), a potent neurotrophin and member of the NGF-beta family, secreted from dense core vesicles, which promotes the growth, differentiation and survival of neurons within, or directly connected to, the central nervous system (CNS). BDNF signals through binding to the high affinity receptor trkB, and also binds to the low affinity neurotrophin receptor LNGFR. Studies have shown the involvement of BDNF in the modulation of short-term synaptic function and in the formation of long-term memory, and reduced levels of BDNF are seen in patients with Alzheimer's and Huntington disease.

Other Notes	Small volumes of anti-BDNF antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for BDNF purchase	MBS223543 is an antibody targeting BDNF. Also known as RABBIT ANTI HUMAN BDNF. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for BDNF. It may not necessarily be applicable to this product.

NCBI GI #	219842288
NCBI GeneID	627
NCBI Accession #	NP_001137277.1
UniProt Primary Accession #	P23560
UniProt Secondary Accession #	Q598Q1; Q6DN19; Q6YNR2; Q6YNR3; Q9BYY7; Q9UC24; A7LA85; A7LA92; D3DQZ2
UniProt Related Accession #	P23560
GenBank Nucleotide #	NM_001143805.1
NCBI Official Full Name	brain-derived neurotrophic factor isoform a preproprotein
NCBI Official Synonym Full Names	brain-derived neurotrophic factor
NCBI Official Symbol	BDNF
NCBI Official Synonym Symbols	ANON2; BULN2
UniProt Protein Name	Brain-derived neurotrophic factor
UniProt Synonym Protein Names	Abrineurin
Protein Family	Brain-derived neurotrophic factor
UniProt Gene Name	BDNF
UniProt Synonym Gene Names	BDNF
UniProt Entry Name	BDNF_HUMAN
NCBI Protein Information	brain-derived neurotrophic factor; abrineurin; neurotrophin
NCBI Summary for BDNF	The protein encoded by this gene is a member of the nerve growth factor family. It is induced by cortical neurons, and is necessary for survival of striatal neurons in the brain. Expression of this gene is reduced in both Alzheimer's and Huntington disease patients. This gene may play a role in the regulation of stress response and in the biology of mood disorders. Multiple transcript variants encoding distinct isoforms have been described for this gene. [provided by RefSeq, Jan 2009]

UniProt Comments for BDNF	BDNF: During development, promotes the survival and differentiation of selected neuronal populations of the peripheral and central nervous systems. Participates in axonal growth, pathfinding and in the modulation of dendritic growth and morphology. Major regulator of synaptic transmission and plasticity at adult synapses in many regions of the CNS. The versatility of BDNF is emphasized by its contribution to a range of adaptive neuronal responses including long-term potentiation (LTP), long-term depression (LTD), certain forms of short-term synaptic plasticity, as well as homeostatic regulation of intrinsic neuronal excitability. Defects in BDNF are a cause of congenital central hypoventilation syndrome (CCHS); also known as congenital failure of autonomic control or Ondine curse. CCHS is a rare disorder characterized by abnormal control of respiration in the absence of neuromuscular or lung disease, or an identifiable brain stem lesion. A deficiency in autonomic control of respiration results in inadequate or negligible ventilatory and arousal responses to hypercapnia and hypoxemia. CCHS is frequently complicated with neurocristopathies such as Hirschsprung disease that occurs in about 16% of CCHS cases. Belongs to the NGF-beta family. 5 isoforms of the human protein are produced by alternative promoter. Protein type: Secreted; Cytokine; Secreted, signal peptide; Cell development/differentiation Chromosomal Location of Human Ortholog: 11p13 Cellular Component: extracellular space; mitochondrial crista; synaptic vesicle; perinuclear region of cytoplasm; cytoplasmic membrane-bound vesicle; dendrite; cytoplasm; extracellular region; terminal button; perikaryon Molecular Function: growth factor activity; neurotrophin TRKB receptor binding Biological Process: circadian rhythm; axon guidance; mechanoreceptor differentiation; behavioral fear response; mitochondrial electron transport, NADH to ubiquinone; regulation of neuron differentiation; axon extension; response to hormone stimulus; positive regulation of long-term neuronal synaptic plasticity; response to vitamin A; negative regulation of neuroblast proliferation; ureteric bud development; dendrite development; regulation of retinal cell programmed cell death; feeding behavior; negative regulation of neuron apoptosis; negative regulation of synaptic transmission, GABAergic; response to electrical stimulus; inner ear development; response to food; nervous system development; chronic inflammatory response; response to light intensity; neuron recognition; regulation of axon extension; learning; regulation of short-term neuronal synaptic plasticity; negative regulation of striated muscle development; positive regulation of peptidyl-serine phosphorylation; positive regulation of synaptogenesis; response to hyperoxia; axon target recognition; glutamate secretion; response to fluoxetine; response to hypoxia; nerve development; response to activity; regulation of excitatory postsynaptic membrane potential; positive regulation of neuron differentiation; transmembrane receptor protein tyrosine kinase signaling pathway; neurite morphogenesis; gamma-aminobutyric acid signaling pathway Disease: Obsessive-compulsive Disorder; Bulimia Nervosa, Susceptibility To, 1; Bulimia Nervosa, Susceptibility To, 2; Central Hypoventilation Syndrome, Congenital
Research Articles on BDNF	**1.** BDNF Met allele carriers were, in general, more sensitive to the effects of parental rearing compared to Val/Val carriers in relation to anxiety and somatization.
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